LISTING OF CLAIMS

This listing of claims replaces all prior listings and versions of claims in the application.

Claims 1-73. (Previously Cancelled)

74. (Currently Amended) A system for monitoring physiological status of a mammalian subject, comprising:

a. ~~a~~ one or more biointerface ~~head~~ heads (BIH), each comprising ~~at least~~ one or more of a sensor for measuring a physiological ~~parameters~~ parameter and a device for therapeutic compound delivery, ~~the~~ at least one of said biointerface ~~head~~ heads being implanted subdermally and configured to communicate a BIH identifier with data related to said physiological parameter; ~~further comprising:~~

~~i. a mounting ring that anchors said system to a dermal layer;~~

~~ii. a flexible transdermal conduit attached to said mounting ring at or near a first end, wherein said transdermal conduit is in contact with a sensor assembly;~~

~~iii. a sensor mounting head, wherein said sensor mounting head is attached to a second end of said transdermal conduit;~~

~~iv. a biofluid access port within said sensor mounting head, the biofluid access port further comprising microstructures capable of allowing biofluid flow into the transdermal conduit to contact the sensor assembly and block transmission of external pathogens into a subject~~;

b. ~~a~~ at least one control and communication module (CCM) attached to an external surface of said subject and storing a CCM identifier and which is linked to the biointerface head to receive said data and said BIH identification tag, wherein said control and communication module processes data from ~~the~~ at least one biointerface head ~~and converts, conditions and encrypts said data~~;

c. at least one data collection unit (DCU) which receives data and said identifiers from the control and communication module; and

d. a remote database management system which receives data from the at least one data collection unit and processes said data.

75. (Previously Presented) The system of Claim 74, wherein said biointerface head is attached to said mammalian subject with at least one adhesive.

76. (Previously Presented) The system of Claim 75, wherein said adhesive contains one or more of the groups comprising: growth factors, adherence molecules, adherence attractants or factors which promote cutaneous wound-healing mechanisms and formation of an epithelial-like structure around the mounting ring.

77. (Previously Presented) The system of Claim 74, wherein the transdermal conduit and biofluid access port is coated with a hydrogel material.

78. (Previously Presented) The system of Claim 74, wherein the transdermal conduit further comprises a hydrogel material.

79. (Previously Presented) The system of Claims 77 or 78, wherein the hydrogel material contains preservatives, anti-inflammatory agents, antibiotics or antimicrobial agents.

80. (Previously Presented) The system of Claims 77 or 78, wherein the hydrogel material contains a chemical, compound or molecule for calibration of the sensor.

81. (Previously Presented) The system of Claim 74, wherein the transdermal conduit comprises a fluid material containing preservatives, anti-inflammatory agents, antibiotics or antimicrobial agents.

82. (Currently Amended) The system of Claim 74, wherein ~~the biointerface head further~~ said system comprises a chamber which releases one or more therapeutic agents.

83. (New) A system comprising:

a subdermal physiological parameter sensor to measure a physiological parameter of a mammalian subject and to generate measurement information based on the measurements;

a control and communication module in data communication with the physiological parameter sensor to receive the measurement information from the physiological parameter sensor, the control and communication module including signal processing circuitry to generate

and transmit a first signal based on the measurement information, the first signal including identifiers separately identifying the control and communication module and the physiological parameter sensor.

84. (New) The system of claim 83, further comprising a transdermal conduit extending from outside the mammalian subject to a vicinity of the subdermal physiological parameter sensor.

85. (New) The system of claim 83, wherein the control and communication module further comprises signal encryption circuitry to encrypt the first signal for transmission.

86. (New) The system of claim 83, wherein the control and communication module comprises a subdermal control and communication module.

87. (New) A method comprising:

receiving in a data collection unit a first signal from a communications module, the first signal including information relating to a physiological parameter of a mammalian subject, the physiological parameter information collected by a subdermal physiological parameter sensor in data communication with the communications module, the first signal also including an identifier separately identifying both the communications module and the physiological parameter sensor;

generating in said data collection unit a second signal for transmission to a management system, the second signal including information relating to the physiological parameter of the mammalian subject and the identifiers separately identifying both the communications module and the physiological parameter sensor, and

transmitting the second signal to the management system.

88. (New) The method of claim 87, wherein generating the second signal comprises encoding the information relating to the physiological parameter received from the communications module.

AMENDMENTS TO THE DRAWINGS

The attached proposed drawing correction includes changes to FIGS. 10A and 10B. In FIGS. 10A and 10B, reference numeral 164 has been added and reference numeral 188 has been changed to reference numeral 194.

Attachment: Annotated Sheet Showing Changes